



COMPLIANCE COMPONENT

Last updated: 8/3/05

DEFINITION	
<i>Name</i>	Database Management Systems (DBMS) – Accessibility
<i>Description</i>	<p>Three components that make up database accessibility: connectivity, interoperability and interfaces.</p> <ul style="list-style-type: none"> Connectivity – the required components that allow client connections into a database. Interoperability – the structuring of the components (hardware, software, data standards etc) that allow them to interact and share information across and between systems. Interfaces – the capabilities that provide the systems capacity to support the various application environments being developed upon the database. <p>These components operate within the constraints, protocols, and processes defined by the Security Domain in the areas of access, connections, and interoperability.</p>
<i>Rationale</i>	The citizens and stakeholders of the State of Missouri expect to have direct access and integrated government information. Therefore, the DBMS should implement and maintain open database access and interoperability by integrating desktop tools and line-of-business applications.
<i>Benefits</i>	<p>Enables accessibility between applications and database management systems and between the database management systems of different software providers by enabling:</p> <ul style="list-style-type: none"> Web readiness Client-server connectivity Enhanced support of User Defined Functions (UDF) Portable stored procedures Integrated Development Environment (IDE) support
ASSOCIATED ARCHITECTURE LEVELS	
<i>Specify the Domain Name</i>	Information
<i>Specify the Discipline Name</i>	Database Management
<i>Specify the Technology Area Name</i>	Database Management Systems
<i>Specify the Product Component Name</i>	
COMPLIANCE COMPONENT TYPE	
<i>Document the Compliance Component Type</i>	Standard
<i>Component Sub-type</i>	
COMPLIANCE DETAIL	
<i>State the Guideline, Standard or Legislation</i>	<p>Connectivity is provided by using one of the following industry standard Application Programming Interface (API) technologies for application-portability:</p> <ul style="list-style-type: none"> Open Database Connectivity (ODBC) – SQL Access Group's standard API for database access using a C programming language interface through the use of dynamic SQL calls. JAVA Database Connectivity (JDBC) – Sun Microsystem's standard API for database access using the JAVA language through the use of dynamic SQL calls. Embedded SQL for JAVA (SQLJ) – SQLJ Group's standard API for

	<p>database access using the JAVA language through the use of static SQL calls.</p> <ul style="list-style-type: none">• ActiveX Data Objects (ADO) – Microsoft’s standard API for database access using Windows programming through the use of dynamic SQL calls - from Component Object Model + (COM+).• Object Link Embedding for Database (OLE DB) – Microsoft’s standard low-level API for database access using Window programming through the use of dynamic SQL calls - from the Component Object Model (COM).• SQL Call Level Interface (SQL/CLI) – X/Open / ISO’s specification for database access using dynamic SQL calls.• Remote Data Objects (RDO) – Microsoft’s standard API for database access using Windows programming through the use of dynamic SQL calls - evolved into ADO. <p>Interoperability is provided by having database access routines written independently of the platform and the underlying data structure. This accessibility is created and managed within the context of the security constraints and operational processes developed and documented within the Security Domain of the Missouri Adaptive Enterprise Architecture. Separating database access logic from the application logic makes databases easier to relocate, to restructure, or to re-platform the back-end services with minimal disruption to the software applications that use the databases.</p> <ul style="list-style-type: none">• Distributed Relational Database Architecture (DRDA) – Open Group standard for database access interoperability (dynamic & static SQL) – see Security Domain for details• Remote Database Access (RDA) – ISO & ANSI standard for database access interoperability (dynamic SQL only) – see Security Domain for details• Simple Object Access Protocol (SOAP) specifications– see Security Domain for details <p>Interfaces provide the capability for the following support:</p> <ul style="list-style-type: none">• Electronic Business eXtensible Markup Language (ebXML) suite of approved Organization for the Advancement of Structured Information Standards (OASIS) specifications• Extensible Markup Language (XML) Standards as defined and approved by the Worldwide Web Consortium (W3C)• Universal Description, Discovery, and Integration (UDDI) XML-based registry for publishing and discovering web services, both as a private internal registry or a public/hosted node using the standard UDDI Publication API• Web Services Description Language (WSDL)• JAVA 2 Enterprise Edition (J2EE) platform and the most current JAVA Standards as defined and approved in the JAVA Community Process (JCP)• American National Standards Institute & International Organization for Standardization Structured Query Language (ANSI/IOS SQL) – standard programming language for accessing and manipulating database systems.		
Document Source Reference #			
Compliance Sources			
Name	The Open Group	Website	www.opengroup.org
Contact Information			
Name		Website	

<i>Contact Information</i>			
KEYWORDS			
<i>List Keywords</i>	Database Connectivity, Database Interfaces, Database Interoperability, Open Database Connectivity (ODBC), JAVA Database Connectivity (JDBC), Extensible Markup Language (XML), Electronic Business eXtensible Markup Language (ebXML), Universal Description Discovery and Integration (UDDI), JAVA 2 Enterprise Edition (J2EE), Simple Object Access Protocol (SOAP), Web Services Description Language (WSDL), JAVA Community Process (JCP), Worldwide Web Consortium (W3C), Embedded SQL for JAVA (SQLJ), ActiveX Data Objects (ADO), Object Link Embedding for Database (OLE DB), SQL Call Level Interface (SQL/CLI), Remote Data Objects (RDO), Distributed Relational Database Architecture (DRDA), Remote Database Access (RDA), Component Object Model + (COM+), American National Standards Institute & International Organization for Standardization (ANSI/IOS)		
COMPONENT CLASSIFICATION			
<i>Provide the Classification</i>	<input type="checkbox"/> <i>Emerging</i>	<input checked="" type="checkbox"/> <i>Current</i>	<input type="checkbox"/> <i>Twilight</i> <input type="checkbox"/> <i>Sunset</i>
<i>Sunset Date</i>			
COMPONENT SUB-CLASSIFICATION			
Sub-Classification	Date	Additional Sub-Classification Information	
<input type="checkbox"/> <i>Technology Watch</i>			
<input type="checkbox"/> <i>Variance</i>			
<input type="checkbox"/> <i>Conditional Use</i>			
Rationale for Component Classification			
<i>Document the Rationale for Component Classification</i>			
Migration Strategy			
<i>Document the Migration Strategy</i>			
Impact Position Statement			
<i>Document the Position Statement on Impact</i>			
CURRENT STATUS			
<i>Provide the Current Status</i>	<input type="checkbox"/> <i>In Development</i>	<input type="checkbox"/> <i>Under Review</i>	<input checked="" type="checkbox"/> <i>Approved</i> <input type="checkbox"/> <i>Rejected</i>
AUDIT TRAIL			
<i>Creation Date</i>	12/27/2004	<i>Date Approved / Rejected</i>	08/09/05
<i>Reason for Rejection</i>			
<i>Last Date Reviewed</i>		<i>Last Date Updated</i>	
<i>Reason for Update</i>			